03050109-130
(Rabon Creek)

General Description

Watershed 03050109-130 is located in Greenville and Laurens Counties and consists primarily of *Rabon Creek* and its tributaries. The watershed occupies 81,459 acres of the Piedmont region of South Carolina. The predominant soil types consist of an association of the Cecil-Madison-Davidson-Louisburg series. The erodibility of the soil (K) averages 0.22; the slope of the terrain averages 15%, with a range of 2-40%. Land use/land cover in the watershed includes: 1.76% urban land, 19.71 agricultural land, 14.54% scrub/shrub land, 1.01% barren land, 61.88% forested land, and 1.18% water.

South Rabon Creek (Payne Branch, Bullit Branch) and North Rabon Creek (Stoddard Creek, Pumpkin Branch, Mountain Creek, Lick Creek) originate near the Town of Fountain Inn, and join together to form Lake Rabon near the City of Laurens. Lake Rabon is managed by the City of Laurens CPW and is used as a drinking water supply. Rabon Creek (Dirty Creek, Burriss Creek) flows out of the Lake Rabon dam to form an arm of Lake Greenwood further downstream. There are several small recreational lakes and a total of 175.2 stream miles in this watershed, all classified FW.

Water Quality

Station #	Type	Class	Description
S-859	BIO	FW	MOUNTAIN CREEK AT SR 77
S-321	W	FW	NORTH RABON CREEK AT S-30-32
S-313	W	FW	LAKE RABON, N.RABON CREEK ARM, 2.5 MI UPSTREAM OF DAM
S-860	BIO	FW	SOUTH RABON CREEK AT SR 77
S-322	W	FW	SOUTH RABON CREEK ON DIRT ROAD BETWEEN SC 101 & S-30-76
S-312	W	FW	LAKE RABON, S.RABON CREEK ARM, DOWNSTREAM OF S-30-312
S-296	P	FW	LAKE RABON 300 FT UPSTREAM OF DAM
S-096	S/BIO	FW	RABON CREEK AT S-30-54, 8.8 MI NW OF CROSS HILL
S-307	W	FW	LAKE GREENWOOD, RABON CREEK ARM, 0.8 KM N OF S-30-307

***South Rabon Creek* - There are two monitoring sites along South Rabon Creek. Aquatic life uses are fully supported at the upstream site (S-860) based on macroinvertebrate community data. At the downstream site (S-322), aquatic life uses are also fully supported, but recreational uses are not supported due to fecal coliform bacteria excursions.**

***North Rabon Creek (S-321)* - Aquatic life uses are fully supported. Recreational uses are partially supported due to fecal coliform bacteria excursions.**

***Mountain Creek (S-859)* - Aquatic life uses are fully supported based on macroinvertebrate community data.**

***Lake Rabon* - Lake Rabon is a 537-acre impoundment on Rabon Creek, with a maximum depth of approximately 8.3m and an average depth of approximately 4.0m. The lake's watershed comprises 229.9km^2. Eutrophication assessments indicate that Lake Rabon is one of the least eutrophic small lakes in South Carolina, characterized by low nutrient concentrations. Preservation of this lake's desirable trophic condition is recommended.**

There are three monitoring sites along Lake Rabon. Aquatic life and recreational uses are fully supported in both the North Rabon Creek arm (S-313) and the South Rabon Creek arm (S-312). At the

downlake site (S-296), aquatic life uses are again fully supported, but there is a significant decreasing trend in pH and a significant increasing trend in total phosphorus concentrations. A significant decreasing trend in five-day biochemical oxygen demand suggests improving conditions for this parameter. A very high concentration of chromium and high concentrations of copper and nickel were measured in the 1993 sediment sample from S-296, and a very high concentration of cadmium was measured in the 1994 sample. Also in sediments, P,P'DDE, a metabolite of DDT, was detected in the 1993 sample. Although the use of DDT was banned in 1973, it is very persistent in the environment. Recreational uses are fully supported at this site.

***Rabon Creek (S-096)* - Aquatic life uses are fully supported based on macroinvertebrate community data, but there are significant decreasing trends in dissolved oxygen and pH. Significant decreasing trends in five-day biochemical oxygen demand and total phosphorus concentrations suggest improving conditions for these parameters. Recreational uses are partially supported due to fecal coliform bacteria excursions.**

***Rabon Creek Arm of Lake Greenwood (S-307)* - Eutrophication assessments indicate that the Rabon Creek arm of Lake Greenwood is of intermediate trophic condition compared to other sites in large South Carolina lakes. Aquatic life uses are fully supported, but there was a very high concentration of chromium measured in 1997. Although pH excursions occurred, they are considered a natural condition in lakes with significant aquatic plant communities. Recreational uses are partially supported at this site due to fecal coliform bacteria excursions.**

Permitted Activities

Point Source Contributions

RECEIVING STREAM	***NPDES#***
FACILITY NAME	***TYPE***
PERMITTED FLOW @ PIPE (MGD)	***LIMITATION***
COMMENT	
STODDARD CREEK	**SCG250131**
VAN DORN PLASTIC MACHINERY	**MINOR INDUSTRIAL**
PIPE #: 001 FLOW: 0.0004	**EFFLUENT**
PAYNE BRANCH	**SCG250106**
FIBERWEB NORTH AMERICA, INC.	**MINOR INDUSTRIAL**
PIPE #: 001 FLOW: M/R	**EFFLUENT**
MOUNTAIN CREEK	**SC0032298**
S & S WASHERETTE	**MINOR INDUSTRIAL**
PIPE #: 001 FLOW: 0.006	**WATER QUALITY**
WQL FOR NH3-N, TRC	
LAND APPLICATION	**PERMIT#**
FACILITY NAME	**TYPE**
SPRAYFIELD	**ND0072010**
WEISNER SEPTIC TANK CO.	**DOMESTIC**

Landfill Activities

SOLID WASTE LANDFILL NAME *FACILITY TYPE*	*PERMIT #* *STATUS*
SOUTHEASTERN ASSOC. C & D	----- ACTIVE

Water Supply

WATER USER (TYPE) *WATERBODY*	*REGULATED CAPACITY (MGD)* *PUMPING CAPACITY (MGD)*
CITY OF LAURENS CPW (M) LAKE RABON	9.3 17.3
CITY OF LAURENS CPW (M) RABON CREEK	2.0 5.0

Growth Potential

There is an increasing potential for growth along the I-385 corridor in the eastern portion of this watershed near the greater Laurens area. Many residential subdivisions and industrial sites are being constructed. Agricultural and silvicultural activities are prevalent in the western and central portion of the watershed. US 76 crosses Lake Rabon and the watershed en route to the City of Laurens.